

# PATENT ABSTRACTS OF JAPAN

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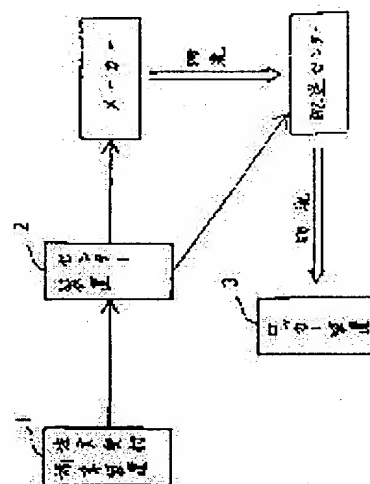
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(54) ORDER ACCEPTING AND SELLING DEVICE

(57)Abstract:

PURPOSE: To receive a piece of merchandise saved in a locker even by an unspecified third person and to improve availability by comparing receiver information at the time of accepting order with principal information at the time of receiving merchandise and controlling the taking out of the piece of saved merchandise.

CONSTITUTION: When a customer inputs the piece of merchandise, for which a home delivery is desired, to an order accepting terminal equipment 1, the equipment 1 transmits order information to a center device 2. The device 2 processes the procedure of the home delivery and indicates a locker device 3 to deliver the piece of merchandise. When a deliver inputs the receiver information to the device 3, the device 3 compares the receiver information with user information, and when both the pieces of information coincide with each other, the device 3 controls the keep of the piece of merchandise and stores the receiver information. When a receiver inputs the principal information after that, the device 3 compares the principal information with the receiver information and allows the taking out of the piece of saved merchandise only when both the pieces of information coincide with each other. Consequently, the subject device can be used even by the unspecified third person, and the availability can be



improved.

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CLAIMS

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[Claim(s)]

[Claim 1] A locker means to have the goods stowage which can be opened and closed, and an input means to input information, A medium processing means to process the medium of evidence by which identification information was recorded, and the information of the operator inputted from said input means and the identification information read from said medium of evidence by said medium processing means are collated. An authority distinction means to distinguish whether an operator has just authority based on a collating result, The locker system characterized by having the control means which controls the goods stowage of said locker means so that receipt or ejection of goods becomes possible when said authority distinction means had just authority and it distinguishes.

[Claim 2] Said control means is a locker system according to claim 1 characterized by what it has a means to distinguish that goods were contained by said locker means, and a means to publish at least one side of the letter of delivery for notifying the claim check and recipient to a delivery person of delivery of goods based on this distinction for.

[Claim 3] Said control means is a locker system according to claim 1 characterized by what it has a means to distinguish that the goods contained by said locker means were taken out, and a means to answer predetermined actuation of a delivery person and to publish the receipt to a delivery person based on this distinction for.

[Claim 4] It is the locker system according to claim 1 which at least one side of said input means and said medium processing means is equipped with a means input the information about delivery, and is characterized by what said control means is equipped with a means distinguish that goods were contained by said locker means, and a claim check issue means publish the claim check to a delivery person based on the information about the delivery which answered this distinction and was inputted for.

[Claim 5] Said claim check issue means is a locker system according to claim 4 characterized by what at least one side of the means which writes said claim check in said medium of evidence through said medium processing means, and a printing means to print said claim check is included for.

[Claim 6] Said control means is a locker system according to claim 1 characterized by what it has a means to distinguish that the goods contained by said locker means were taken out, and a delivery certificate issue means to answer this distinction and to publish a delivery certificate to a recipient for.

[Claim 7] Said delivery certificate issue means is a locker system according to claim 6 characterized by what at least one side of the means which writes said delivery certificate in said medium of the recipient who is an operator of evidence through said medium processing means, a printing means to print said delivery certificate, and \*\* is included for.

[Claim 8] At least one side of said input means and said medium processing means It has a means to input the information about reception. Said control means A means to distinguish that the goods contained by said locker means were taken out, and this distinction are answered. To other timing The locker system according to claim 1 characterized by what predetermined actuation of the delivery person who is an operator is answered, and it has a receipt issue means to publish the receipt to a delivery

person based on the information about reception for.

[Claim 9] Said receipt issue means is a locker system according to claim 8 characterized by what at least one side of the means which writes said receipt in said medium of a delivery person of evidence through said medium processing means, a printing means to print said receipt, and \*\* is included for.

[Claim 10] Said medium of evidence has memorized the delivery information about a delivery object. Said locker means A display means to read and display said delivery information currently recorded on said medium of evidence, A means to choose the thing of the arbitration of the displayed delivery information, and a means to control a delivery object possible [ receipt ] to said goods stowage when a delivery object is chosen, The locker system according to claim 1 characterized by what what the delivery object was contained for by this goods stowage is detected, and it has a means to set the information which expresses delivery ending to said selected delivery information for.

[Claim 11] It is the locker system according to claim 10 which said medium of evidence has memorized the delivery information about the goods for delivery, and is characterized by what the display means of said locker control means is equipped with a means to read the thing relevant to self alternatively and to display it among said delivery information currently recorded on said medium of evidence for.

[Claim 12] A locker means to have the goods stowage which can be opened and closed, and an input means to input information, An authority distinction means to distinguish whether an operator has just authority based on the information inputted from said input means, When said authority distinction means had just authority, and it distinguishes, and closing motion of said goods stowage of said locker means is controlled, receipt or ejection of the goods to this goods stowage is made possible and goods are contained by said goods stowage The locker system characterized by having the control means which publishes a receipt when this goods receipt person performs predetermined actuation after publishing the claim check and taking out goods from said goods stowage.

[Claim 13] Said authority distinction means is a locker system according to claim 12 characterized by what a means to distinguish whether an operator has just authority is included for based on the identification information read from said medium of evidence by said medium processing means including a medium processing means, as for said input means, to process the medium of evidence by which identification information was recorded.

[Claim 14] Said medium of evidence is a locker system according to claim 12 by which the information about delivery is memorized and said control means is characterized by what the claim check to a delivery person is generated and it has a means to store in said medium of evidence for based on the information which read the information about delivery and was read from said medium of evidence.

[Claim 15] Said medium of evidence for delivery persons is equipped with the postscript mold record component which is not rewritable, and the semiconductor device which memorized the information about said delivery. Said authority distinction means It has a means to distinguish an operator's justification from said semiconductor device based on the information which read the information about said delivery and was read. Said control means The locker system according to claim 12 characterized by what the claim check to a delivery person is generated and it has a means to record on said postscript mold record component for based on the read information.

[Claim 16] It is the locker system according to claim 15 characterized by what said medium of evidence for recipients memorizes the information about a recipient, and said control means is equipped with the means which a recipient generates and memorizes the receipt which shows that the delivery object was received, and stores in said medium of evidence for delivery persons to other timing based on the information read from said medium of evidence for recipients for.

[Claim 17] Said medium of evidence for delivery persons is equipped with the postscript mold record component which is not rewritable, and the semiconductor device which memorized the information about delivery. Said medium of evidence for recipients It has the postscript mold record component which is not rewritable, and the semiconductor device which memorized the information about a recipient. Said control means From said semiconductor device of said medium of evidence for delivery persons, read the information about said delivery, and based on the read information, distinguish the justification of the delivery person who is an operator and the claim check to a delivery person is

generated further. Store in said postscript mold record component of said medium of evidence for delivery persons, and the information about said recipient is read from said semiconductor device of said medium of evidence for recipients. The justification of the recipient who is an operator is distinguished based on the read information. Create the delivery information for specifying the contents of delivery, and it stores in the postscript mold record component of said medium of evidence for recipients. Furthermore, the locker system according to claim 13 characterized by what a recipient generates the receipt which shows that the delivery object was received, and makes said postscript mold record component of said medium of evidence for delivery persons memorize.

[Claim 18] It is a locker system given in claim 1 characterized by what said control means emits an alarm for for said host-processing means when said control means is combined with the host processor which controls said two or more locker systems through the communication line and said authority distinction means detects abnormalities to a collating result thru/or any 1 term of 17.

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DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the locker system which mediates transfer of goods in uninhabited, and relates to the locker system which aimed at especially improvement in an intelligent function.

[0002]

[Description of the Prior Art] Delivery of mail, delivery of a delivery load, etc. are becoming less easy [ in connection with the increment in upper-layers-izing of a building, the number of housing units in the same building, or the number of tenants, fullness of a security function, etc. ] at an apartment, a tenant building, etc. That is, in order to set to an apartment or a tenant building and for the delivery member of a post office or a delivery contractor's delivery person in charge to deliver or deliver goods, such as mail or a delivery load, certainly, it is desirable to send to each residence or each tenant's doorway. However, it is also common for it to be complicated to have goods and to go to every house opening according to the structure of a building etc., itself. And in many cases, if the receiver's address is absent, once bringing goods home, it must send again. Furthermore, it becomes much more difficult even for every house opening to deliver or deliver, so that the receipts and payments of a building itself are restricted and a substantial security function is aimed at, in order to control the crime pretending to be a delivery contractor etc.

[0003] In the usual case, small mail etc. is coping with it by installing the resident of the building, or a tenant's mailbox near the entrance of a building. However, required registered mail facilities, required delivery loads, etc., such as big mail which does not go into a mailbox, or a receipt stamp, must send even every house opening.

[0004] Then, it is called a full time locker etc. and the locker system which has the goods stowage with a door which cannot be opened and closed if not based on predetermined actuation is proposed.

[0005] this conventional kind of locker system is installed near the entrance of a building -- having -- a magnetic-recording card etc. -- a user -- while performing authentication of his and the specific contractor who contracted beforehand and opening and closing the door of a goods stowage, goods with a user, a delivery member, a delivery contractor, etc. are delivered through this goods stowage by publishing a required delivery notice, a receipt, a claim check, etc.

[0006]

[Problem(s) to be Solved by the Invention] However, fundamentally, the conventional locker system does not perform closing motion control of a goods stowage in uninhabited, and was not necessarily enough about the adaptability to various use gestalten, and the flexibility of correspondence. For example, about an operator's authentication, it depended on the magnetic-recording card and the so-called personal identification number, and it was difficult to improve the security to the unauthorized use of a magnetic-recording card etc. Moreover, since there was also no function for guaranteeing transfer of money to the locker system itself, unless the contract about pulling down from the account of a financial institution was beforehand made among contractors, it was also impossible to have dealt with the

delivery accompanied by transfer of money like \*\*\*\*\* (price exchange) delivery.

[0007] This invention was made in view of the situation mentioned above, can raise the certainty of authentication of an operator, can cope with the delivery accompanied by transfer of money etc. flexibly, and aims at offering the locker system which enables improvement in security, and expansion of applicability.

[0008]

[Means for Solving the Problem] In order to attain the above-mentioned purpose, the locker system concerning the 1st viewpoint of this invention A locker means to have the goods stowage which can be opened and closed, and an input means to input information, The medium of evidence by which his identification information was recorded, for example, a medium processing means to process an IC card, An authority distinction means to distinguish whether the information of the operator inputted from said input means and the information read from said medium of evidence by said medium processing means are collated, and an operator has just authority based on a collating result, When said authority distinction means had just authority and it distinguishes, it is characterized by having the control means which controls the goods stowage of said locker means so that receipt or ejection of goods becomes possible.

[0009] According to such a system, transfer of the goods through a locker is attained. And since the justification is distinguished from the information inputted from the input means, and the information registered into the medium of evidence, the justification can be distinguished correctly.

[0010] Moreover, you may have a means to distinguish that goods were contained by said locker means, and a means to publish at least one side of the letter of delivery for notifying the claim check and recipient to a delivery person of delivery of goods based on this distinction. Furthermore, you may have a means to distinguish that the goods contained by goods were taken out by said locker means, and a means to answer predetermined actuation of a delivery person and to publish the receipt to a delivery person based on this distinction. The certainty and dependability of goods transfer can be raised by considering as such a configuration.

[0011] A claim check, the letter of delivery, a receipt, etc. may be printed and published on paper etc., or may be electronically stored in a medium of evidence etc. Moreover, you may make it input the information recorded on these documents from actuation of an operator or a card. In addition, it is also possible to carry out direct delivery of the delivery object to a recipient. For this reason, the information about delivery is stored in the medium of evidence, and only when a recipient is absent, the delivery object which uses this locker system is chosen, and you may make it display this delivery information and contain the selected delivery object in a locker. Under the present circumstances, the information (flag etc.) which shows delivery ending may be added to the delivery information on a delivery object that delivery was finished, and you may make it the business which cannot be chosen in the case of the next display. Moreover, Locker ID etc. is included in delivery information, this ID is searched as a key, and you may make it display only the delivery information on the delivery object relevant to each locker system.

[0012] The locker system concerning the 2nd viewpoint of this invention A locker means to have the goods stowage which can be opened and closed, and an input means to input information, An authority distinction means to distinguish whether an operator has just authority based on the information information inputted from said input means, When said authority distinction means had just authority, and it distinguishes, and closing motion of the goods stowage of said locker means is controlled, receipt or ejection of the goods to a stowage is made possible and goods are contained by the goods stowage When this goods receipt person performs predetermined actuation after publishing the claim check and taking out goods from a goods stowage, it is characterized by having the control means which publishes a receipt.

[0013] According to such a system, transfer of the goods through a locker is attained. And since the justification is distinguished from the information inputted from the input means, the justification can be distinguished correctly. Moreover, since a claim check and a receipt are published, the certainty of goods transfer is high.

[0014] Said authority distinction means may arrange a means to distinguish whether an operator has just authority, based on the identification information read from said medium of evidence by said medium processing means including a medium processing means, as for said input means, to process the medium of evidence by which identification information was recorded. Dependability can be raised by considering as such a configuration.

[0015] From said medium of evidence, the information (for example, information about a delivery person and a destination) about delivery is read, based on the read information, the claim check to a delivery person may be generated and a means to store in said medium of evidence may be arranged. The means which a recipient generates and memorizes the receipt which shows that the delivery object was received, and stores in the medium of evidence for delivery persons to other timing may be arranged. Furthermore, weight of the evidence can be heightened by making the postscript mold record component (for example, optical recording medium which forms a pit and memorizes data) which cannot rewrite a medium of evidence memorize these documents.

[0016] When said locker control means is combined with the host processor which controls said two or more locker systems through a communication line and abnormalities are detected to a collating result, you may make it emit an alarm for said host-processing means.

[0017]

[Embodiment of the Invention] Hereafter, the gestalt of implementation of this invention is explained with reference to a drawing.

(Gestalt of the 1st operation) With reference to drawing 1 and drawing 2, the locker system concerning the gestalt of implementation of the 1st of this invention is explained.

[0018] This locker system is constituted by a locker 1, the actuation control section 2, a communication network 3, and the management center 4 as shown in drawing 1. A locker 1 has the goods stowages 10-19. The goods stowages 10-19 are equipped with a door with a lock, respectively, and hold of the goods into the goods stowage 10-19 and fetch of the goods from the goods stowages 10-19 of them become possible by closing motion of this door.

[0019] The actuation control section 2 is formed in the corner section of a locker 1 in one with the goods stowages 10-19. The actuation control section 2 has the locker control section 20, a video camera 21, a video monitor 22, a display 23, a loudspeaker 24, a microphone 25, the actuation key 26, card equipment 27, the document printer 28, and telephone 29.

[0020] It is combined with a video camera 21, a video monitor 22, a display 23, a loudspeaker 24, a microphone 25, the actuation key 26, card equipment 27, the document printer 28, and telephone 29, and the locker control section 20 is controlling actuation of the whole actuation control section 2. The door of the goods stowages 10-19 of a locker 1 is opened and closed according to an individual by control of this locker control section 20. The door of the goods stowages 10-19 is wide opened only by control of the locker control section 20 except for the cases at the time of failure and maintenance check etc. of being special, at the time of an abnormal occurrence. Moreover, the locker control section 20 memorizes, collates and processes data if needed. Furthermore, these records (log) are taken.

[0021] An operator is mainly concerned with a video camera 21, it picturizes the image of the face, and inputs image information into the locker control section 20. A video monitor 22 is controlled by the locker control section 20, and displays the image picturized with the video camera 21.

[0022] A display 23 is controlled by the locker control section 20, and displays actuation information, input, etc. for an interactive actuation input. A microphone 25 collects an operator's voice and inputs speech information into the locker control section 20. The actuation key 26 is constituted by a numerical keypad, the function key, etc., and when an operator operates it with reference to a display 23, it inputs necessary information interactively to the locker control section 20.

[0023] Card equipment 27 performs read-out and the writing of the recording information of IC (integrated circuit) card. The locker control section 20 records new information on an IC card while reading recording information from an IC card through card equipment 27.

[0024] Proper information, such as image information of his face for attesting him and his speech information, is recorded on an IC card. The personal identification number may be recorded on the IC

card. Since the information recorded on an IC card is the information for identifying him, it should just be the information which such information does not need to be recorded as they are and can use for collating for his discernment. Furthermore, the false money information for a prepaid function is recorded on an IC card.

[0025] An IC card is published by a financial institution, the independent organization, etc. as usually known. False money card information which is registered into the IC card and which is updated by changing the amount of money of arbitration to a locker employment account from an IC card holder's bank account etc. so that it may mention later with reference to drawing 7 (addition). Information required for this change, for example, an IC card holder's bank information, a bank account number, the account information of a locker operating company, etc. are registered into the IC card.

[0026] The document printer 28 is controlled by the locker control section 20, and prints and publishes a goods receipt, a claim check, the letter of delivery, etc. Telephone 29 is held in a part of actuation control section 2, and if needed, it is used in order to contact the management center 4.

[0027] The locker control section 20 is combined with the management center 4 through the communication network 3. A communication network 3 is constituted by an analog or a digital dial-up line, the permanent communication circuit, etc.

[0028] Drawing 2 shows the detailed configuration of the management center 4. The management center 4 has a server 40, a hub 41, the communication server 42, consoles 43 and 44, the card equipments 45 and 46, the disk unit 47, the printer 48, and the uninterruptible power supply (UPS) 49. Locker control-section 2A, locker 1A of having-2B plurality, and 1B-- are combined with the management center 4 like the locker 1 in drawing 1 through the communication network 3, respectively.

[0029] Operators, such as a management person in charge, reside in the management center 4 permanently, and it always corresponds to it to the trouble of Lockers 1A and 1B to telephone contact by the telephone 29 of attachment in the locker control section 2. Furthermore, the management center 4 also performs auxiliary business of employment of the locker system itself, for example, approaches directly by telephone etc. to a user according to the use situation of Lockers 1A and 1B. This approach performs business, such as demanding the ejection of a load from a user, when for example, the delivery load is deposited in the locker.

[0030] Servers 40 are each lockers 1A and 1B which constitute the host system which builds LAN (Local Area Network) of the management center 4, and are combined through the communication network 3. -- Grasp of the use situation of every management of user information, such as management of locker information, such as an installation and a contact, a locker user's name, a room number, and the telephone number, and locker 1A, and 1B-- etc. is performed. For grasp of the use situation of every locker 1A and 1B--, transaction information will be collected once to each locker 1A and 1B-- on the 1st, and a use situation will be supervised.

[0031] A hub 41 combines a server 40, the communication server 42, and consoles 43 and 44, and builds LAN in the management center 4. The communication server 42 controls the communication link between a hub 41 and a communication network 3, and combines with each locker 1A and 1B-- LAN in the management center 4 built by the server 40 through a communication network 3.

[0032] Consoles 43 and 44 are terminals for the operator of the management center 4 to operate it. When an operator operates a console manually at the time of trouble generating, they are Lockers 1A and 1B. - The door of the goods stowages 10-19 can be opened.

[0033] The card equipments 45 and 46 perform the read-out writing of the IC card about consoles 43 and 44, and read IC cards, such as an operator's personnel certificate, for authentication of the operator who operates consoles 43 and 44 for the security of a system, gate management, etc.

[0034] A disk unit 47 is the external storage for employment of a server 40, and a printer 48 is used for the hard copy output of the management information by the server 40 etc. The uninterruptible power supply 49 is formed in order to back up the power source of a server 40, to prevent the sudden down of a server 40, to evacuate required information etc. in the cases, such as interruption of service, and to raise the dependability of a system to them.

[0035] The various use gestalten in the locker system shown in drawing 1 and drawing 2 are explained

concretely. The flow chart which explains delivery and the receipt of a registered mail to drawing 3 and drawing 4, respectively is shown.

[0036] (1) Explain delivery \*\*\*\* of a registered mail, and delivery of the registered mail by the postman with reference to drawing 3 which shows the flow of actuation of a postman. When a postman visits to delivery of a registered mail, it checks first whether a destination person, i.e., a recipient, is absent (step S11). If a destination person is not absent, a postman will visit to a destination person's doorway immediately, will hand mail, and will complete delivery in response to a recipient's receipt stamp (step S12).

[0037] At step S11, when a destination person was absent and it was the former, the postman was performing re-delivery behind. Thus, a locker system can be used when a destination person is absent. That is, when a destination person is absent, a postman operates the actuation key 26 with reference to the display 23 of the actuation control section 2, performs a delivery person's confirmation operation, and makes delivery person information record locker control-section 20 first in step S11 by an IC card, a personal identification number, etc. which were prepared beforehand (step S13). The locker control section 20 opens one door of the vacant goods stowages 10-19 (step S14). A postman deposits a registered mail object in the open goods stowage (step S15), and closes the door of the goods stowage (step S16). In addition, the goods stowage only for registered mail objects may be arranged.

[0038] In case goods are deposited in a goods stowage, arranging goods is directed to the position in a goods stowage so that the goods sensor formed in the goods stowage can detect hold of goods. These directions are made by either the character representation on a display 23, or the phonological representation by the loudspeaker 24. Moreover, the door of the goods stowages 10-19 shall be closed by manual operation in this case.

[0039] If a goods stowage is closed, the locker control section 20 will match and memorize the number of the stowage where goods were contained, and the number of a claim check. Moreover, a claim check and the letter of delivery are published by the document printer 28 (step S17). A postman once receives the claim check and the letter of delivery which were published (step S18), posts the letter of delivery to a destination person's mailbox (step S19), and completes delivery of a registered mail. As shown in drawing 5 (A), a management meeting company name, a claim check number, etc. of having deposited mail in the locker 1 using the date and IC card which it being a claim check and a locker 1 kept, and a locker system are entered in the claim check which a postman brings home for the certification of delivery. Moreover, in the shape of delivery, as shown in drawing 5 (B), the number of the goods stowage where registered mail is contained, the number of a claim check, etc. are recorded.

[0040] In addition, it is also possible to notify of the registered mail object being deposited in a locker 1 by other approaches, for example, telephone contact etc. In addition, when a recipient is notified by telephone contact etc., for example, issue of the letter of delivery in step S17-19, receipt, and mailing are unnecessary. Moreover, the letter of delivery is not published by control of the locker control section 20, but a postman may be made to bring it beforehand.

[0041] (2) Explain the receipt of the registered mail by the receipt, next user, i.e., the recipient, of a registered mail with reference to drawing 4 which shows the flow of actuation of a recipient. First, a user investigates his own mailbox and checks the existence of the letter of delivery (step S21). When the letter of delivery is not contained in the mailbox, it ends without doing anything. At step S21, when the letter of delivery is contained in the mailbox, a user sets an IC card in card equipment 27 while inputting the number of the stowage which operated the actuation key 26 and was indicated by the claim check, the number of a claim check, etc. Then, according to guidance through the display 23 and loudspeaker 24 by control of the locker control section 20, the specification of an individual based on the information on an IC card, i.e., authentication, is performed (step S22).

[0042] At step S22, the voice collected by the image of the face caught with the video camera 21 and the microphone 25 is collated with the individual proper information read from the IC card. Since it is judged that others are abusing the IC card when he is not able to specify at step S22, exception processing is performed immediately and it carries out [ notify / the management center 4 ] (step S23).

[0043] At step S22, when he is able to be specified, the locker control section 20 opens the door to

which the goods stowages 10-19 of a locker 1 correspond (step S24). A recipient takes out and receives a registered mail object from the open goods stowage (step S25), and closes the door of the goods stowage (step S26). If the door of a goods stowage is closed, the locker control section 20 will publish a receipt to a post office (step S27). As this receipt is shown in drawing 6 based on the information beforehand recorded on the IC card, the management meeting company name of the image of the address of the date and recipient who took out and received that it is a receipt, the date deposited in the locker 1, a claim check number, and mail from the locker 1, a name, and seal, having received, and a locker system etc. is filled in. This receipt is sent to a post office through a network 3 by the FAX communication link through online communications or online communications. Therefore, you may make it send the receipt on which the receipt was printed by the document printer 28 and the manager was printed to a post office by mail, FAX, etc.

[0044] Moreover, when it keeps to the IC card of the delivery member of a post office, information is written in and the delivery member used the locker 1 again, as long as it is already received, you may make it write an electronic receipt stamp, the so-called electronic signature, and a digital signature in the IC card. In order to prevent an informational alteration and risk of injustice being performed, the data of receipt communication are enciphered, and it transmits and is made to decode by the specific person by the post office side in the case of the receipt communication by online communications. Since an alteration serves as correction in the paper in the case of facsimile, discovering, even if an alteration is performed is possible. An alteration can be prevented, if it is made to carry out marking to the original with color stamps, such as red, in order to prevent an alteration, since it is difficult to distinguish from a copy in the case of facsimile.

[0045] Next, the delivery accompanied by electronic banking is explained. In order to use electronic banking, it is necessary to charge namely, register money into an IC card beforehand (PURIPEI). For this reason, the actuation control section 2 of a locker 1 also has a function as uninhabited [ POS ]. That is, as shown in drawing 7, the terminal capabilities which used the locker control section 20, the display 23, the actuation key 26, and the card equipment 27 grade change the actuation control section 2 of a locker 1 to the locker employment account (for example, a locker manager's account) which prepared 1,000 yen beforehand, for example from the bank account of the user of a financial institution through a communication line (and management center 4).

[0046] When charging to an IC card, an operator sets an IC card in card equipment 27, and it directs that it is charge of false money from the actuation key 26. The locker control section 20 answers these directions, and displays "please input a personal identification number" etc. on a display 23. If this display is answered and an operator inputs a personal identification number, the locker control section 20 compares the personal identification number registered into the IC card with the inputted personal identification number, and if in agreement, it will display the message which asks the charge amount of money on a display 23.

[0047] If an operator inputs the charge amount of money, the locker control section 20 accesses a financial institution through a communication line 3, and directs the change of the directed amount of money start-operator's bank account registered into IC card origin by making into a start place the locker employment account registered into the locker control section 20. Answering these directions, a financial institution changes the amount of money directed to the locker employment account from an operator's bank account.

[0048] A financial institution will transmit the wording of a telegram of the purport which change completed to the locker control section 20, if change is materialized. Answering this wording of a telegram, the locker control section 20 adds the amount of money directed to the balance of the false money registered into the IC card through card equipment 27, and updates the balance.

[0049] Thus, if it sets, it can pull out electronically from 1,000 yen which registered into this IC card the tariff which the transfer using a locker of goods takes through the locker control section 20. And charge (registration) of the false money to an IC card can be ensured [ simple and ], without minding a third person's hand.

[0050] In addition, charge of the false money to an IC card is not limited to the above-mentioned

technique. For example, while equipping the ATM machine of a financial institution with an IC card, you may make it an ATM machine write false money in an IC card by an ATM machine receiving cash. A payment machine may be arranged to the locker control section 20, and the function as ATM may be added to it. When the need of having the area where the locker control section 20 also saves false money in these cases, for example, paying arises, the applicable amount is pulled down from the false money of an IC card, and the applicable amount is added to the balance of the false money storage section of the locker control section 20.

[0051] Like \*\*\*\*\* delivery, a typical example of delivery of the load accompanied by settlement of accounts and a receipt is typically shown in drawing 8 . A deposit of the load in this case and the flow of actuation of a receipt are shown in drawing 9 and drawing 10 as compared with the case where it is not accompanied by settlement of accounts.

[0052] (3) In settlement-of-accounts mold delivery drawing 8 , when delivering the load accompanied by settlement of accounts, a shipping agent operates the actuation control section 2 of a locker 1, and checks that he is the contractor who registered beforehand according to authentication by the password and the IC card. And the claim amount of money is inputted and a delivery load is deposited in the goods stowage of a locker 1. A receipt and the letter of delivery are published from the actuation control section 2 of a locker 1. A shipping agent brings a receipt home and the invoice as which the letter of delivery and the claim amount of money (for example, 1,000 yen) which show that the load has arrived were displayed is posted to a destination person's, i.e., a recipient, mailbox.

[0053] The recipient who is the user of a locker equips card equipment 27 with a self IC card, and he performs his check according to the authentication using the proper information registered into the IC card while he inputs a deposit number, a stowage number, etc. If authentication is checked, the claim amount of money is checked and the price payment by the IC card is directed by predetermined processing. The locker control section 20 subtracts the price registered beforehand from the false money of an IC card, publishes a receipt, and opens the door of the corresponding locker 1 further. A recipient takes out a load.

[0054] If a recipient takes out a load, as for the locker control section 20, fetch information, such as a deposit number, deposit time, ejection time, the claim amount of money, and the payment amount of money, will be sent to the management center 4 by batch processing. A transfer request is automatically sent to A financial institution from the management center 4, and the money (1,000 yen) is transferred to the company account of the shipping agent of B financial institution from the systems operation account of the recipient of A financial institution.

[0055] The flow of concrete actuation of the shipping agent in the case of the making a deposit at the time of delivery and an amount setup of collection of money is shown in drawing 9 . First, if the initiation carbon button of the actuation key 26 of the actuation control section 2 is operated (step S31), an actuation menu will be displayed and 4. the contents of processing and "a delivered article (collection of money)" will be chosen from the inside of a menu (step S32). Next, a receiver's address room number is inputted (step S33), a shipping agent's supplier number is inputted (step S34), and after a check of a shipping agent is performed, a setup of (step S35) and the amount of collection of money is performed (step S36). Since the door of the goods stowage of a locker 1 opens after the above actuation is completed normally, a load is deposited and a door is shut (step S37). Then, the receipt and the letter of delivery which were described previously are published (step S38).

[0056] At drawing 9 , although the arrow head of a continuous line showed the procedure of delivery of a settlement-of-accounts mold, as the arrow head of a broken line shows to drawing 9 in the case of the mold non-settling accounts, a setup of the amount of collection of money of step S36 is only skipped, and others are the same as that of the case of a settlement-of-accounts mold.

[0057] the flow of concrete actuation of the reception of a making a deposit \*\*\*\* load and the recipient in the case of price pulling down is shown in a locker at drawing 10 .

[0058] First, if an IC card is set in card equipment 27 (step S41), after his authentication is performed, it will check whether there is any difference in the amount of collection of money by the comparison with an invoice and the amount of money of a screen display (step S42). If both are in agreement, while

charging price directly to (O.K.) and the false money of an IC card (step S43) and publishing a receipt as a result of the comparison of step S42 (step S44), the door of the goods stowage of a locker 1 is opened wide, and a load is taken over (step S45).

[0059] At step S42, if both are not in agreement, (NG) and the actuation till then are canceled (step S46), and the management center 4 is connected with (step S47). The management center 4 deals with compulsive disconnection of a locker etc. (step S48).

[0060] In drawing 10, although the arrow head of a continuous line showed the procedure of delivery of a settlement-of-accounts mold, as the arrow head of a broken line shows, in the case of the mold non-settling accounts, processing of steps S42-S44 is skipped to drawing 10.

[0061] In addition, in the locker system mentioned above, using the security function of an IC card, important data, such as a personal identification number, set up a key, encipher, and prevent unjust access. Moreover, the wording of a telegram sent and received through a communication network 3 prevents unjust access by scrambling, sending and receiving.

[0062] Moreover, in addition to delivery of a load and mail, an above-mentioned locker system can be used almost similarly effective in dispatch of the load to the delivery contractor who contracted beforehand, transfer of the washing with the cleaning store a contract of was made beforehand, etc.

[0063] (Gestalt of the 2nd operation) Next, with reference to drawing 11 and drawing 12, the locker system concerning the gestalt of implementation of the 2nd of this invention is explained. The optical IC hybrid card equipped with the optical Records Department of the postscript mold whose rewriting is impossible as an IC card in addition to the magnetic-stripe-recording section and an IC memory is used for the locker system of the gestalt of this operation. Moreover, card equipment 27 reads the contents of storage of the optical recording section, and is equipped with the device for recording data on the optical recording section.

[0064] Delivery of the registered mail by the postman is explained with reference to drawing 11 which shows the flow of actuation of a postman. In this case, drawing 11 shows the flow in delivery of the almost same registered mail as drawing 3, and gives the same sign to the same part as drawing 3.

[0065] a \*\*\*\*\* [ that a recipient is absent when a postman visits to delivery of a registered mail ] -- checking -- (step S11) -- if not absent, a postman will visit to a doorway immediately, will hand mail, and will complete delivery in response to a recipient's receipt stamp (step S12). When a recipient is absent, a postman performs a delivery person's confirmation operation and makes delivery person information record on the locker control section 20 by an optical IC hybrid card, a personal identification number, etc. which were prepared beforehand (step S51).

[0066] By control of the locker control section 20, one door of the goods stowages 10-19 of a locker 1 is opened wide (step S14), and a postman makes the open goods stowage contain a registered mail object, it deposits (step S15), and the door of the goods stowage is closed (step S16).

[0067] If a goods stowage is closed, the locker control section 20 will record claim check information also on the optical Records Department of an optical IC hybrid card by the document printer 28 while publishing a claim check and the letter of delivery (step S52). A postman receives the claim check and the letter of delivery which were published, and the optical IC hybrid card with which record ended (step S53), posts the letter of delivery to a destination person's mailbox (step S19), and completes delivery of a registered mail.

[0068] About the receipt of this registered mail object, it is completely the same as that of the case of drawing 4.

[0069] Next, the flow of the actuation in the case of a postman's revisit question is explained with reference to drawing 12. When a postman does a revisit question, he sets an optical IC hybrid card in the card equipment 27 of a locker system (step S61). The locker control section 20 returns an optical IC hybrid card as it is, if it checks whether the claim check applicable to the set optical IC hybrid card is issue ending (step S62) and the claim check is not published (step S63). When the claim check is published (i.e., when a load is deposited in a locker 1 before), the contents of the receipt published when a recipient received mail are recorded on an optical IC hybrid card (step S64), and are returned to a postman (step S65).

[0070] According to such a configuration, paper loess-ization can be advanced using an optical IC hybrid card. And the alteration of record data is difficult for the optical recording section of a postscript mold, and the dependability of record data can be raised.

[0071] (Application of the gestalt of the 2nd operation) Next, with reference to drawing 13 - drawing 19, the expansive application of the locker system concerning the gestalt of said 2nd operation is explained. In this application, the optical IC hybrid card 101 for delivery persons and the optical IC hybrid card 201 for recipients are prepared. The optical IC hybrid card 101 for delivery persons is equipped with the IC chip 102 equipped with a control section and a memory area, and the optical recording section 103 which is not rewritable with the postscript mold which writes in data by forming a pit etc. physically as shown in drawing 13.

[0072] The IC chip 102 of the optical IC hybrid card 101 for delivery persons is equipped with the area which stores fixed data, such as "Card ID" "acknowledgement information (information for specifying delivery persons, such as a fingerprint of a name and affiliation of a delivery person, a personal identification number, and a delivery person, and proving the justification), and the work area which memorizes a delivery day, a recipient's name and the address, the sender's name, the address, etc. as "delivery information" as shown in drawing 13.

[0073] Moreover, the optical recording section 103 stores the "receipt information" which shows what the recipient received for the delivery object contained by the "receipt vicarious execution information" which shows that the delivery object was contained in the locker, and the locker. "Receipt vicarious execution information" includes "delivery person card information", such as an undertaking number (ID number) of a delivery object, a delivery day, a recipient's name and the address, and the sender's name, the address, "locker vicarious execution custody information", such as the locker ID of the locker which contained the delivery object (ID of locker 1 the very thing), and a claim check number, etc.

[0074] The optical IC hybrid card 201 for recipients is equipped with a control section, the IC chip 202 equipped with a memory area, and the optical recording section 203 that is not rewritable with a postscript mold as shown in drawing 14.

[0075] The IC chip 202 memorizes Card ID, authentication information (information for specifying possessors, such as print of a seal of possessor's name and the address, a personal identification number, possessor's fingerprint, and a possessor's receipt stamp, and proving the justification), address control information, scramble information, etc., as shown in drawing 14. Moreover, the optical recording section 203 stores the undertaking number of a delivery object, a delivery day, the "delivery person card information" that consists of the sender's name and the address, the locker vicarious execution custody information which consists of the date of acceptance, the information by the recipient who consists of a claim check number, etc.

[0076] Moreover, the optical recording sections 103 and 203 of the optical IC hybrid cards 101 and 201 are logically divided into two or more memory areas, and the address information for accessing each memory area is also stored in the IC chips 102 and 202. Furthermore, the information memorized by the optical recording sections 103 and 203 is scrambled, and the information about a scramble and descrambling is also stored in the IC chips 102 and 202.

[0077] Moreover, the actuation control section 2 of a locker 1 is equipped with the optical recording section for having a fingerprint reader, and card equipment 27 writing data in the optical recording sections 103 and 203 based on the address information and scramble information which were stored in the IC chips 102 and 202, and reading data.

[0078] Next, delivery of the registered mail by the postman of the gestalt of this operation is explained with reference to drawing 15 and drawing 16 which show the flow of actuation of a postman.

[0079] First, before a postman goes out for delivery of a registered mail, he equips a terminal with the optical IC hybrid card 101, and registers into the work area of the IC chip 102 of the optical IC hybrid card 101 of self the delivery information (an undertaking number (undertaking number of a post office), a delivery day, a recipient's name and the address, the sender's name and the address) shown in drawing 13 through this terminal about each of the registered mail which it is going to deliver.

[0080] Next, when it visits to delivery of a registered mail, a postman checks whether a recipient is

absent (step S11), if not absent, will hand mail and will complete delivery in response to a recipient's receipt stamp (step S12).

[0081] When a recipient is absent, a postman delivers a registered mail using a locker system.

[0082] First, a postman equips the card equipment 27 of a locker system with this optical IC hybrid card 101 (step S61), and inputs further that it is delivery of registered mail by the actuation key 26 (step S62). Answering this input, the locker control section 20 reads the information stored in the IC chip 102 of the inserted optical IC hybrid card 101 (step S63).

[0083] Furthermore, it directs to touch inputting a personal identification number from the actuation key 26, and the reading side of a fingerprint reader with a finger with the voice guide from a guide display and loudspeaker 24 of a video monitor 22 (step S64). A postman inputs a personal identification number according to directions, and touches a reading side with a finger. The locker control section 20 incorporates the data of the inputted personal identification number and the fingerprint read with the fingerprint reader (step S65).

[0084] Then, the locker control section 20 collates the inputted personal identification number, the personal identification number read from the IC chip 102 and the fingerprint read with the fingerprint reader, and the fingerprint read from the IC chip 102, respectively (steps S66 and S67). The inputted personal identification number and the personal identification number read from the IC chip 102 are not in agreement, and/or when it is judged that the fingerprint data read from the fingerprint read with the fingerprint reader and the IC chip 102 are not in agreement, while reporting abnormalities to the management center 4, exception processing of discharging the optical IC hybrid card 101 is performed (step S68).

[0085] When it is judged that the fingerprint which the inputted personal identification number and the personal identification number read from the IC chip 102 were in agreement on the other hand, and was read with the fingerprint reader, and the fingerprint read from the IC chip 102 are in agreement, the locker control section 20 displays delivery information on a display 23 based on the information read at step S63 (step S69). That is, the list of registered mail objects is displayed.

[0086] A postman chooses a registered mail to deposit with this locker 1 from the lists of displayed registered mail objects by the actuation key 26 (step S70). In addition, when the registered mail object which should be chosen does not exist, a postman directs termination. With these directions, a flow is jumped to step S76 and returns the optical IC hybrid card 101.

[0087] On the other hand, when a registered mail object is chosen at step S70, the locker control section 20 opens the door of either of those as for which the goods stowages 10-19 of a locker 1 are vacant (step S71). The stowage with the registered mail only for deliveries is arranged, and you may make it open what is vacant out of them.

[0088] A postman makes the open goods stowage contain a registered mail object, deposits, and closes the door of the goods stowage.

[0089] The custody number (= claim check number) of a proper, the number of the goods stowage where goods were contained, etc. will be related with the delivery information on the selected mail, and the locker control section 20 will memorize them, if it detects that a goods stowage is closed and goods are contained from the output of a goods sensor (step S72) (step S73).

[0090] Next, the locker control section 20 prints the letter of delivery shown in the claim check shown in drawing 5 (A), and drawing 5 (B) by the document printer 28 (step S74). Furthermore, based on the data memorized inside, the receipt vicarious execution information (delivery person card information (the undertaking number of a registered mail, the delivery day, a recipient's name and the address, the sender's name and the address)) and locker vicarious execution custody information (the identification number of the low car 1, custody number (= claim check number)) which are shown in drawing 13 are recorded on the optical recording section 103 of the optical IC hybrid card 101 with card equipment 27 (step S75). Under the present circumstances, the scramble which determines the write-in location of the optical recording section 103 based on the address information read from the IC chip 102, and is given to write-in data is performed based on the scramble information read from the IC chip 102. Moreover, the flag delivered [ vicarious execution ] is set to what corresponds among the delivery information

memorized in the work area of the IC chip 102.

[0091] Then, the return of the locker control section 20 is carried out to step S69, and it displays the list of registered mails again. However, the locker control section 20 is already deposited with a locker 1, and the inverse video of the registered mail to which the flag delivered [ vicarious execution ] was set is carried out, and it prevents from choosing it.

[0092] A postman chooses the registered mail deposited with this locker, when using this locker 1 continuously. Moreover, in ending delivery, it directs "termination" of actuation.

[0093] When a registered mail object is chosen, it progresses to step S71 and the same processing is repeated. On the other hand, when "termination" is directed, the locker control section 20 discharges the optical IC hybrid card 101 from card equipment 27 (step S76).

[0094] A postman receives the claim check and the letter of delivery which were published, and the optical IC hybrid card [ finishing / record ] 101, posts the letter of delivery to a destination person's mailbox, and completes delivery of a registered mail.

[0095] If a postman does a \*\* office, he will equip the IC card processing terminal of an office with the optical IC hybrid card 101. Then, a processing terminal reads the information on the work area in the IC chip 102, about the delivery information to which the delivered flag is not added, distinguishes as finishing [ personal delivery delivery ], and writes that it is that, i.e., personal delivery, delivery, the undertaking number of a registered mail, a delivery day, a recipient's name and the address, and the sender's name and the address in the optical recording section 103.

[0096] In addition, the contents of the work area of the IC chip 102 are eliminated suitably, or are eliminated by overwrite.

[0097] (2) Explain the flow of actuation of a recipient with reference to drawing 17 and drawing 18 about the receipt of the registered mail by the receipt, next user, i.e., the recipient, of a registered mail. First, a user investigates his own mailbox and checks the existence of the letter of delivery (step S21). When the letter of delivery is not contained in the mailbox, it ends without doing anything. When the letter of delivery is contained in the mailbox, a user operates the actuation key 26, and while inputting the number (custody number) of receiving a registered mail and a claim check etc., the optical IC hybrid card 201 of self is set in card equipment 27 (step S81).

[0098] The locker control section 20 reads Card ID and authentication information which are recorded on the IC chip 202 of the optical IC hybrid card 201 through card equipment 27 (step S82). Furthermore, it directs to carry a finger with the voice guide from a display and loudspeaker 24 of a video monitor 22 on what a personal identification number should be inputted for from the actuation key 26, and a fingerprint reader etc. (step S83).

[0099] A user inputs a personal identification number according to directions, and touches the reading side of a fingerprint reader with a finger. The locker control section 20 incorporates the data of the inputted personal identification number and the fingerprint read with the fingerprint reader (step S84).

[0100] Then, the locker control section 20 collates the inputted personal identification number, the personal identification number read from the IC chip 202 and the fingerprint read with the fingerprint reader, and the fingerprint read from the IC chip 202, respectively (steps S85 and S86). The inputted personal identification number and the personal identification number read from the IC chip 202 are not in agreement, and/or when it is judged that the fingerprint data read from the fingerprint read with the fingerprint reader and the IC chip 202 are not in agreement, while reporting abnormalities to the management center 4, exception processing of discharging the optical IC hybrid card 201 is performed (step S87).

[0101] When the fingerprint which the inputted personal identification number and the personal identification number read from the IC chip 202 were in agreement, and was read with the fingerprint reader, and the fingerprint read from the IC chip 202 are in agreement, the locker control section 20 searches whether the custody number which was inputted at step S81 and which keeps and is in agreement with a number is memorized by the internal memory (step S88). When not memorizing, exception processing of making a custody number reinput etc. is performed (step S89).

[0102] When [ which was inputted at step S81 ] it keeps and the number is memorized by the internal

memory, the number of the goods stowage memorized by matching with the custody number is read, and the door of the goods stowage is opened (step S90). A recipient takes out and receives a registered mail object from the open goods stowage, and closes the door of the goods stowage.

[0103] A door is closed and the locker control section 20 writes the delivery information which created and created delivery information and receipt information from the information which has remembered that it detects that goods were taken out from the stowage from the output of a goods sensor in the optical recording section 203, relates receipt information with a delivery person's card ID, and memorizes it (step S92). (step S91) Here, the rocker control section 20 may delete the associated data memorized to the internal memory. Then, the optical IC hybrid card 201 is discharged from card equipment 27 (step S94). Above, the processing by the recipient is ended.

[0104] Next, the delivery confirmation operation at the time of a postman doing a revisit question is explained with reference to drawing 19. When a postman does a revisit question, he sets the optical IC hybrid card 101 in card equipment 27 (step S101), and inputs that it is reception actuation of recipient information from the key stroke section 26 (step S102). The locker control section 20 reads the card ID of the set optical IC hybrid card (step S103). The locker control section 20 uses this card ID as a key, the receipt information memorized inside is retrieved and corresponding receipt information is \*\*\*\*(ed) (step S104).

[0105] When corresponding recipient information does not exist (step S105), the locker control section 20 drives a video monitor 22 and a loudspeaker 24, reports that the receipt information which should be registered into a card does not exist, and discharges the optical IC hybrid card 101 (step S106). When corresponding receipt information is memorized, the receipt information is recorded on the optical recording section 103 (step S107). In addition, receipt information [ finishing / a store ] is deleted suitably if needed, or is eliminated by overwrite. Then, the locker control section 20 returns the optical IC hybrid card 101 to a postman (step S108). Above, receipt information registration processing is ended.

[0106] In addition, although the corresponding receipt information is recorded on the optical recording section 203 in the above explanation, without checking an operator's justification when a postman directs record of receipt information, processing for the same operator check as steps S66-S68 may be performed.

[0107] The contents stored in the optical recording section 103 of a postman's optical IC hybrid card 101 are read at the terminal of an office etc., are registered into a database etc. and arranged. When having delivered the registered mail needs to be proved later, for this database, the undertaking number of a registered mail is searched to a key, and a person in charge \*\*\*\* the card ID of the optical IC hybrid card 101 which stored the "vicarious execution receipt information" and the "recipient information" equivalent to a delivery certificate.

[0108] Then, the optical IC hybrid card 101 which has the \*\*\*\*(ed) card ID can be taken out, and it can prove having delivered from the contents currently recorded on this optical recording section 103. That is, a postscript cannot rewrite the contents of the optical recording section 103, even if it can do.

Moreover, since the contents of record are scrambled, even if it forms a pit physically and rewrites several bits, rewriting without the whole data and semantics is performed. Moreover, as certification, since print of a seal is contained in recipient information, the "mark" can respond, also when required.

[0109] Furthermore, since delivery information is recorded on the optical recording section 203 of a recipient's optical IC hybrid card 201, it is also possible by comparing with these contents to check the contents of record. Moreover, it is also possible by the locker control section's 20 having taken the log about all processings, and referring to this log to check those contents.

[0110] In addition, although recipient information was stored in the optical recording section 103 of the optical IC hybrid card 101 for delivery persons, when a registered mail object is taken out from a stowage, it notifies to the center of a post office etc. by predetermined wording of a telegram through [ network 3 ] corresponding recipient information, and it may record and save by the post office side, or you may transmit to a post office side by FAX etc., for example.

[0111] ID of a locker is included in delivery information, and in case the list of delivery objects is

displayed at step S69, the delivery information containing ID of the locker corresponding to the locker is retrieved, and you may make it display only the registered mail object relevant to the locker corresponding to the locker, when two or more lockers are arranged in a postman's delivery service area. Moreover, the exclusion object which uses the locker is chosen from the address of the recipient in whom delivery information is included, and you may make it display.

[0112] At the above-mentioned application, although delivery information was recorded on the IC chip 102 of IC card 101 at the post office, when it checked that a destination was absent, delivery information may be registered into the IC chip 102 using a personal digital assistant. moreover, him -- although the fingerprint was used for the check, other information, such as voice, an image of a face, a profile of a face, a retina pattern, an image of a sign, and a password, may be used. Furthermore, you may make it make only an optical IC hybrid card memorize, without printing a claim check, the letter of delivery, a receipt, etc. on paper.

[0113] In addition, the object of delivery does not need to be a registered mail object and can be applied to all delivery objects. Furthermore, the delivery accompanied by transfer of money is also attained by using the false money shown with the gestalt of the 1st operation.

[0114] Moreover, it is also effective to store in the optical recording section 203 of IC card 201 for recipients the false money shown with the gestalt of the 1st operation. For example, by storing all of charge, the use hysteresis of false money, and record of transfer of a delivery object in the optical recording section 203, forgery of false money etc. can be prevented or forgery can be detected easily.

[0115] Moreover, an operator's bodily features may be used as scramble information stored in the IC chips 102 and 202. For example, an owner's fingerprint data are stored in the IC chips 102 and 202, and when in agreement, moreover it compares this fingerprint data with the fingerprint data read with the fingerprint reader, and it may scramble the data which use this fingerprint data and are stored in the optical recording sections 103 and 203, you may descramble the data read from the optical recording sections 103 and 203 using this fingerprint data.

[0116] In addition, this invention is not limited to the gestalt of these operations, but various deformation and application are possible for it. For example, the gestalt of the 2nd operation and its application are applicable also to the delivery receipt of those other than a registered mail. Moreover, it is applicable also to transfer of the goods accompanied by transfer of money at the gestalt of the 2nd operation, and its application.

[0117]

[Effect of the Invention] According to this invention, the certainty of authentication of an operator can be raised and it can leave record of transfer of goods certainly.

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[Translation done.]

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TECHNICAL FIELD

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[Field of the Invention] This invention relates to the locker system which mediates transfer of goods in uninhabited, and relates to the locker system which aimed at especially improvement in an intelligent function.

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[Translation done.]

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PRIOR ART

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[Description of the Prior Art] Delivery of mail, delivery of a delivery load, etc. are becoming less easy [ in connection with the increment in upper-layers-izing of a building, the number of housing units in the same building, or the number of tenants, fullness of a security function, etc. ] at an apartment, a tenant building, etc. That is, in order to set to an apartment or a tenant building and for the delivery member of a post office or a delivery contractor's delivery person in charge to deliver or deliver goods, such as mail or a delivery load, certainly, it is desirable to send to each residence or each tenant's doorway. However, it is also common for it to be complicated to have goods and to go to every house opening according to the structure of a building etc., itself. And in many cases, if the receiver's address is absent, once bringing goods home, it must send again. Furthermore, it becomes much more difficult even for every house opening to deliver or deliver, so that the receipts and payments of a building itself are restricted and a substantial security function is aimed at, in order to control the crime pretending to be a delivery contractor etc.

[0003] In the usual case, small mail etc. is coping with it by installing the resident of the building, or a tenant's mailbox near the entrance of a building. However, required registered mail facilities, required delivery loads, etc., such as big mail which does not go into a mailbox, or a receipt stamp, must send even every house opening.

[0004] Then, it is called a full time locker etc. and the locker system which has the goods stowage with a door which cannot be opened and closed if not based on predetermined actuation is proposed.

[0005] this conventional kind of locker system is installed near the entrance of a building -- having -- a magnetic-recording card etc. -- a user -- while performing authentication of his and the specific contractor who contracted beforehand and opening and closing the door of a goods stowage, goods with a user, a delivery member, a delivery contractor, etc. are delivered through this goods stowage by publishing a required delivery notice, a receipt, a claim check, etc.

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EFFECT OF THE INVENTION

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[Effect of the Invention] According to this invention, the certainty of authentication of an operator can be raised and it can leave record of transfer of goods certainly.

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TECHNICAL PROBLEM

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[Problem(s) to be Solved by the Invention] However, fundamentally, the conventional locker system does not perform closing motion control of a goods stowage in uninhabited, and was not necessarily enough about the adaptability to various use gestalten, and the flexibility of correspondence. For example, about an operator's authentication, it depended on the magnetic-recording card and the so-called personal identification number, and it was difficult to improve the security to the unauthorized use of a magnetic-recording card etc. Moreover, since there was also no function for guaranteeing transfer of money to the locker system itself, unless the contract about pulling down from the account of a financial institution was beforehand made among contractors, it was also impossible to have dealt with the delivery accompanied by transfer of money like \*\*\*\*\* (price exchange) delivery.

[0007] This invention was made in view of the situation mentioned above, can raise the certainty of authentication of an operator, can cope with the delivery accompanied by transfer of money etc. flexibly, and aims at offering the locker system which enables improvement in security, and expansion of applicability.

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[Translation done.]

**\* NOTICES \***

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

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**DESCRIPTION OF DRAWINGS**

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**[Brief Description of the Drawings]**

**[Drawing 1]** It is the block diagram showing the configuration of the principal part of the locker system concerning the gestalt of implementation of the 1st of this invention.

**[Drawing 2]** It is the block diagram showing the configuration of the whole system of the locker system of drawing 1, and the concrete configuration of a management center.

**[Drawing 3]** It is the flow chart which shows the flow of actuation of the postman at the time of registered mail delivery of the locker system of drawing 1.

**[Drawing 4]** It is the flow chart which shows the flow of actuation of the recipient at the time of registered mail delivery of the locker system of drawing 1.

**[Drawing 5]** (A) is drawing of a claim check used at the time of registered mail delivery of the locker system of drawing 1, and (B) is drawing of the letter of delivery.

**[Drawing 6]** It is drawing of the receipt used at the time of the registered mail receipt of the locker system of drawing 1.

**[Drawing 7]** It is a block diagram for explaining the charge to the IC card of false money used for settlement-of-accounts processing of the locker system of drawing 1.

**[Drawing 8]** It is drawing for explaining the procedure of the delivery processing accompanied by settlement of the locker system of drawing 1.

**[Drawing 9]** It is the flow chart which shows the flow of actuation of the shipping agent at the time of the delivery accompanied by settlement of the locker system of drawing 1.

**[Drawing 10]** It is the flow chart which shows the flow of actuation of the recipient at the time of the delivery accompanied by settlement of the locker system of drawing 1.

**[Drawing 11]** It is the flow chart which shows the flow of actuation of the postman at the time of registered mail delivery of the locker system concerning the gestalt of implementation of the 2nd of this invention.

**[Drawing 12]** It is the flow chart which shows the flow of actuation of the postman at the time of the revisit question after registered mail delivery of the locker system of drawing 11.

**[Drawing 13]** It is drawing showing the configuration of the optical IC hybrid card for delivery persons and the configuration of record data concerning the application of the gestalt of the 2nd operation.

**[Drawing 14]** It is drawing showing the configuration of the optical IC hybrid card for recipients and the configuration of record data concerning the application of the gestalt of the 2nd operation.

**[Drawing 15]** It is the flow chart which shows the flow of actuation of the postman at the time of registered mail delivery of the locker system concerning the application of the gestalt of the 2nd operation.

**[Drawing 16]** It is the flow chart which shows the flow of actuation of the postman at the time of registered mail delivery of the locker system concerning the application of the gestalt of the 2nd operation.

**[Drawing 17]** It is the flow chart which shows the flow of actuation of the recipient at the time of registered mail receipt of the locker system concerning the application of the gestalt of the 2nd

operation.

[Drawing 18] It is the flow chart which shows the flow of actuation of the recipient at the time of registered mail receipt of the locker system concerning the application of the gestalt of the 2nd operation.

[Drawing 19] It is the flow chart which shows the flow of actuation of the postman at the time of the revisit question after registered mail delivery of the locker system concerning the application of the gestalt of the 2nd operation.

[Description of Notations]

1, 1A, 1B Locker  
2, 2A, 2B Actuation control section  
3 Communication Network  
4 Management Center  
10-19 Goods stowage  
20 Locker Control Section  
21 Video Camera  
22 Video Monitor  
23 Display  
24 Loudspeaker  
25 Microphone  
26 Actuation Key  
27, 45, 46 Card equipment  
28 Document Printer  
29 Telephone  
40 Server  
41 Hub  
42 Communication Server  
43 44 Console  
47 Disk Unit  
48 Printer  
49 Uninterruptible Power Supply  
101 Optical IC Hybrid Card for Delivery Persons  
102 IC Chip  
103 Optical Recording Section  
201 Optical IC Hybrid Card for Recipients  
202 IC Chip  
203 Optical Recording Section

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[Translation done.]

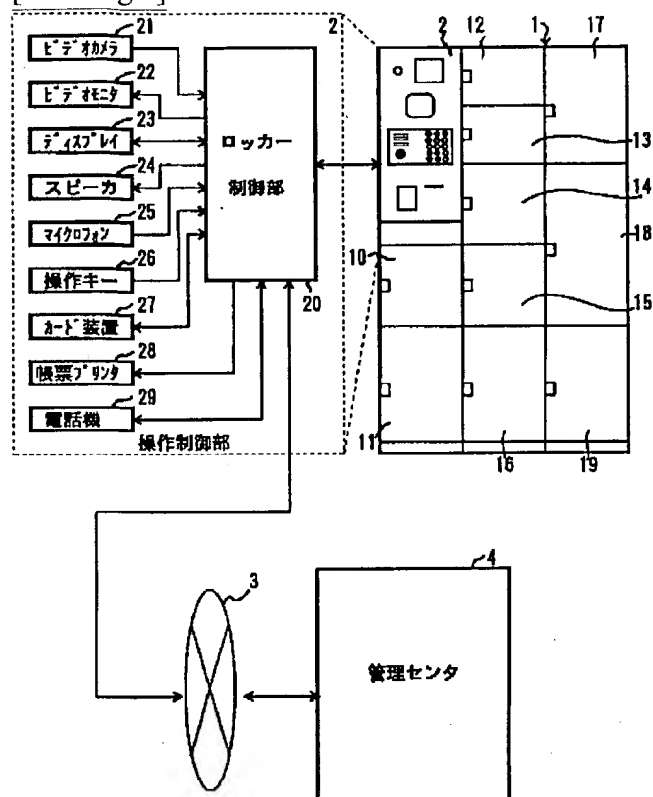
\* NOTICES \*

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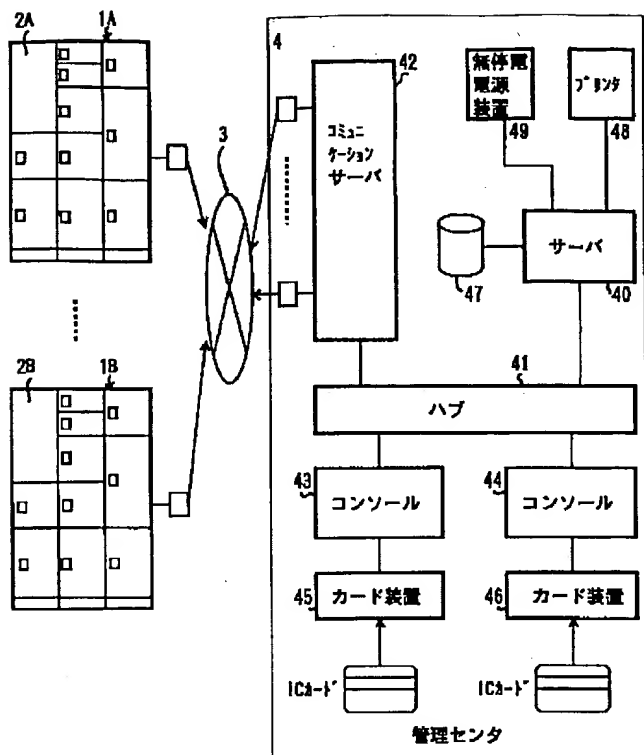
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2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

## DRAWINGS

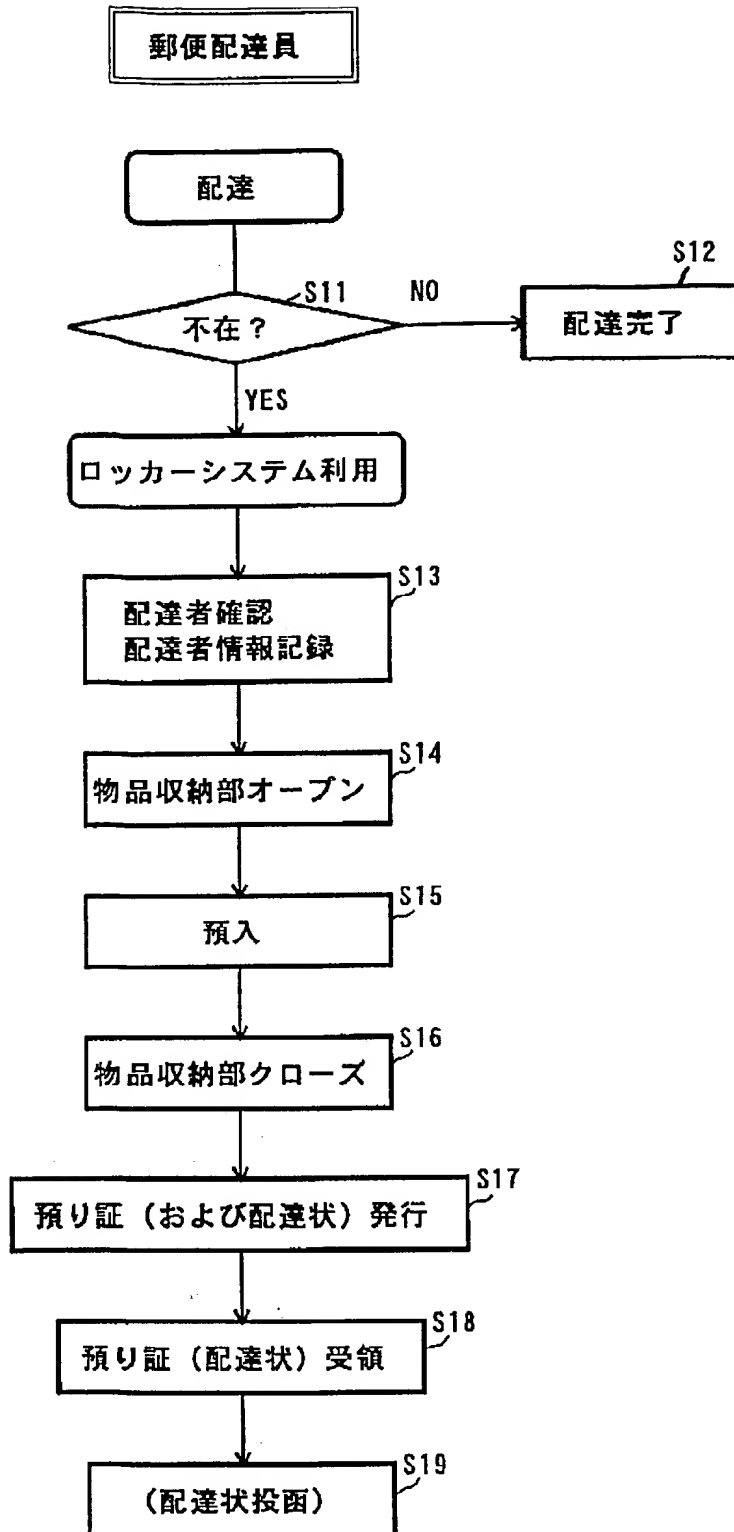
[Drawing 1]



[Drawing 2]



[Drawing 3]



[Drawing 5]

**預り証**

〇〇月〇〇日

□□□カードにて  
郵便物を預かった  
ことを証します。

△△△ (株)

No. 9999

(A)

**配達状**

〇〇月〇〇日

No. 3のロッカーに  
書留郵便を  
お預りしています。

△△△ (株)

No. 9999

(B)

[Drawing 6]

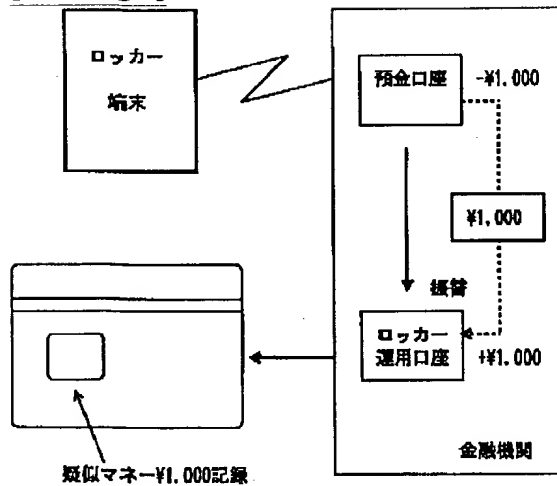
**受領書**

〇〇月〇〇日に  
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預かりNo. 9999は

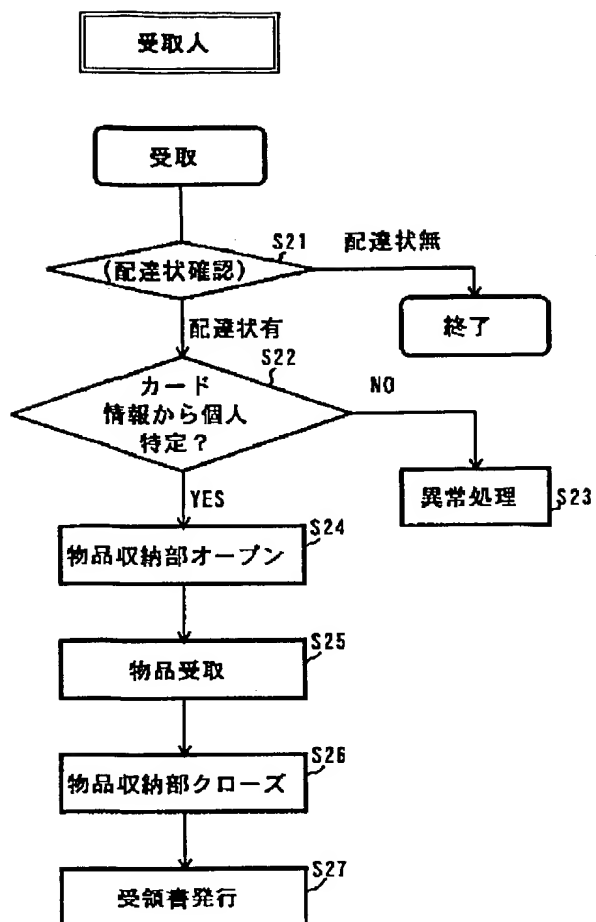
××月××日  
住所  
氏名 様

Ⓢ  
が受け取りました  
ことを連絡申し上  
げます。  
△△△ (株)

[Drawing 7]

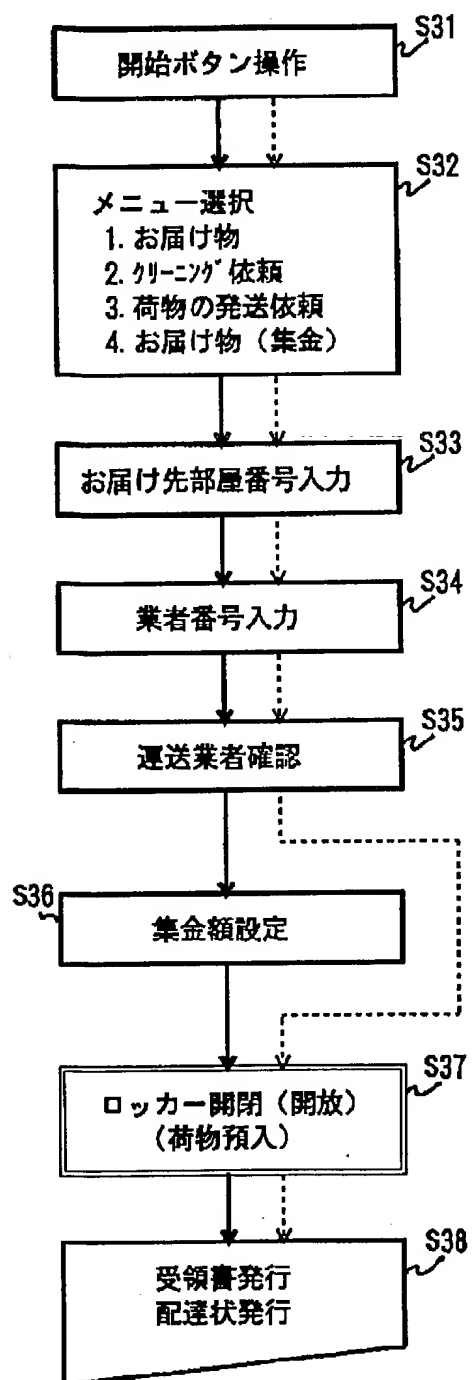


[Drawing 4]

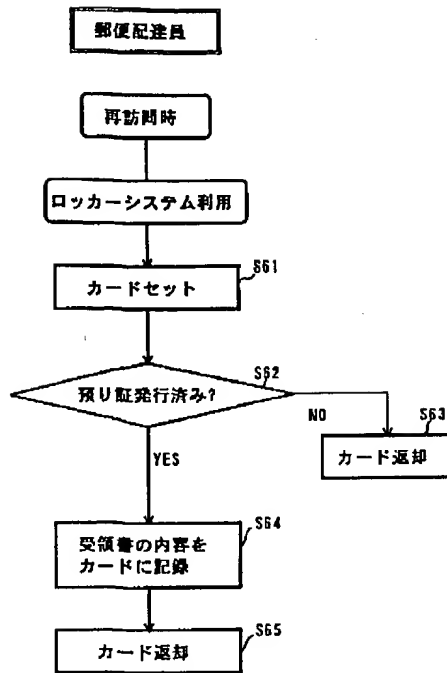


[Drawing 9]

## 預入・集金額設定（運送業者操作）

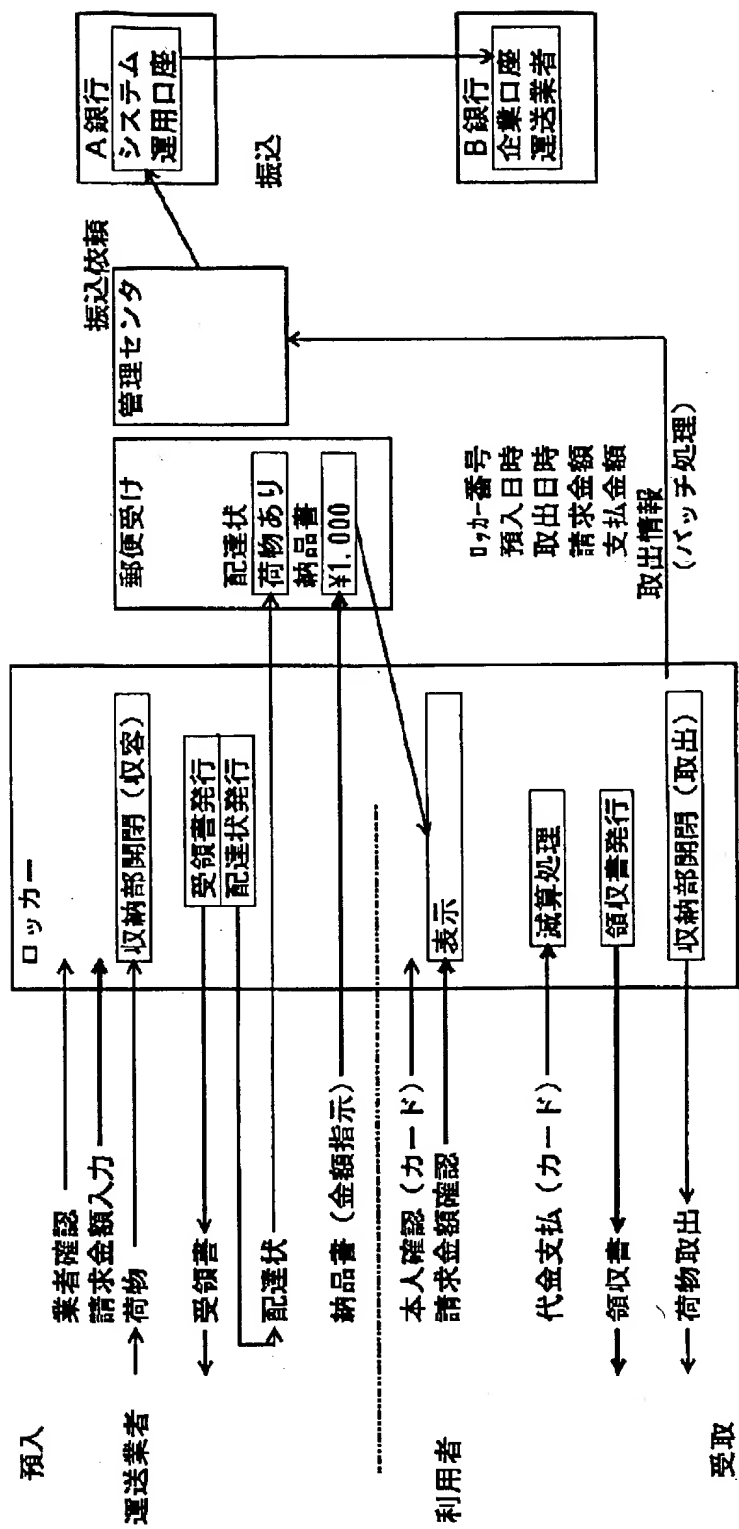


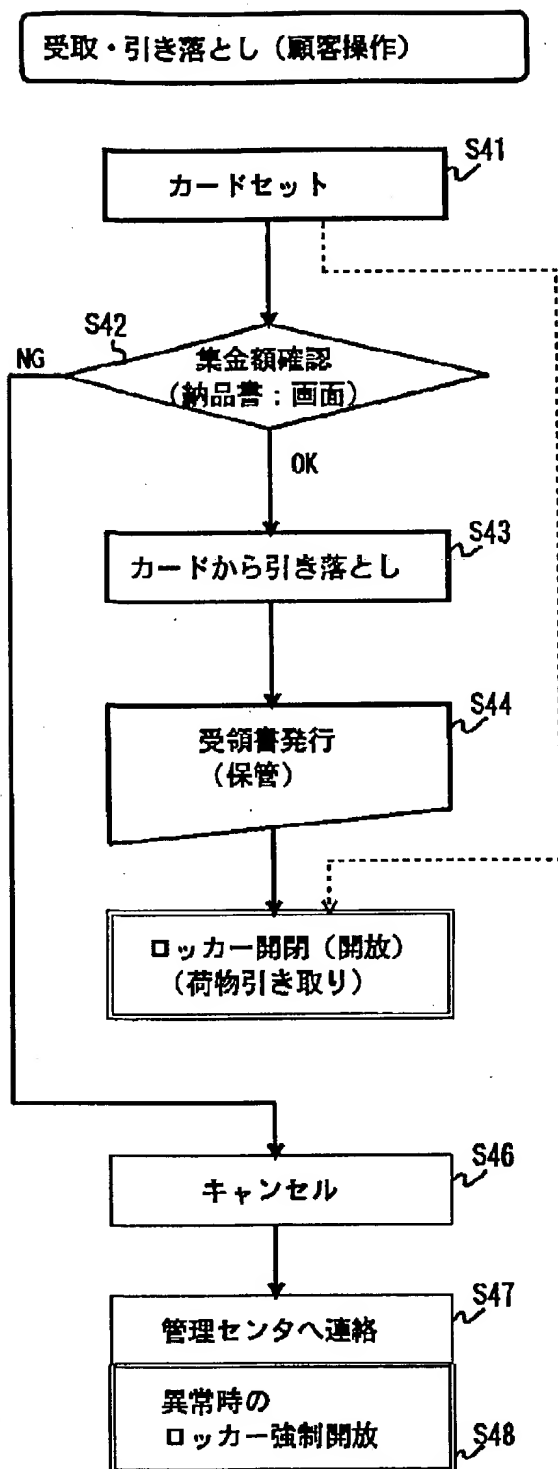
[Drawing 12]



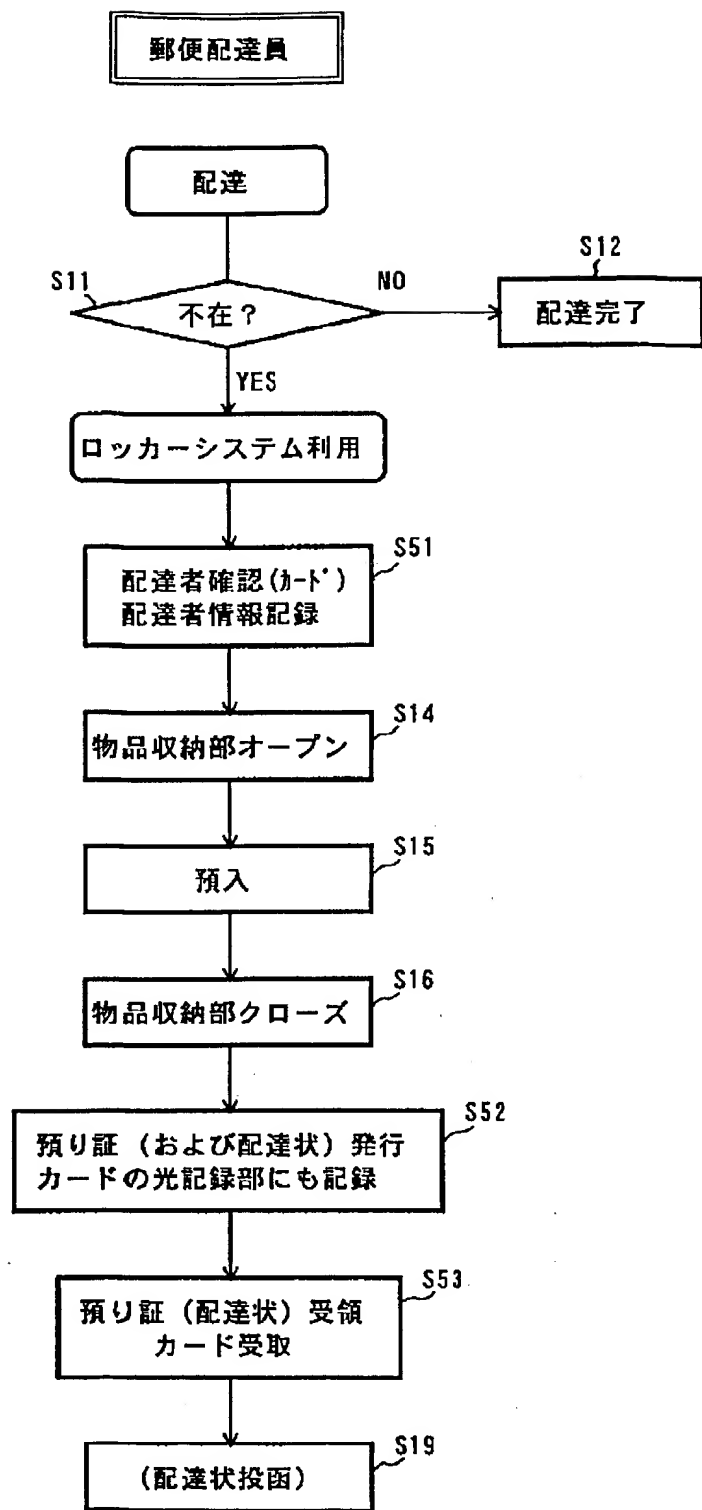
[Drawing 8]

[Drawing 10]

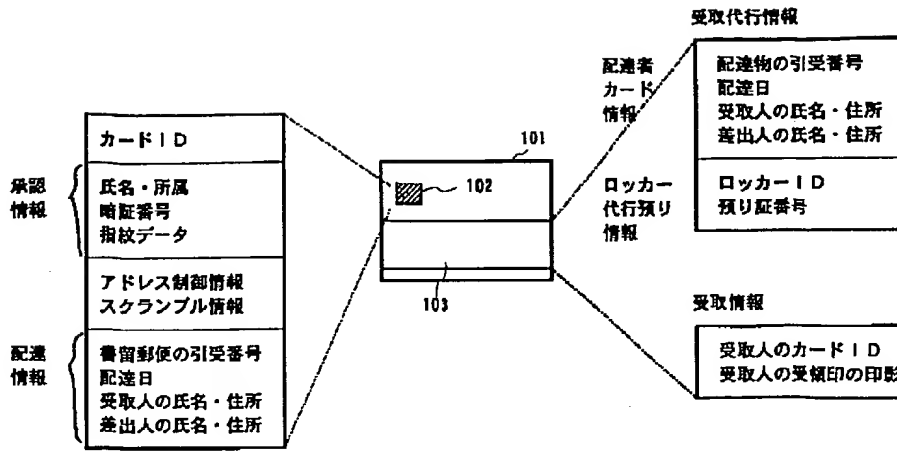




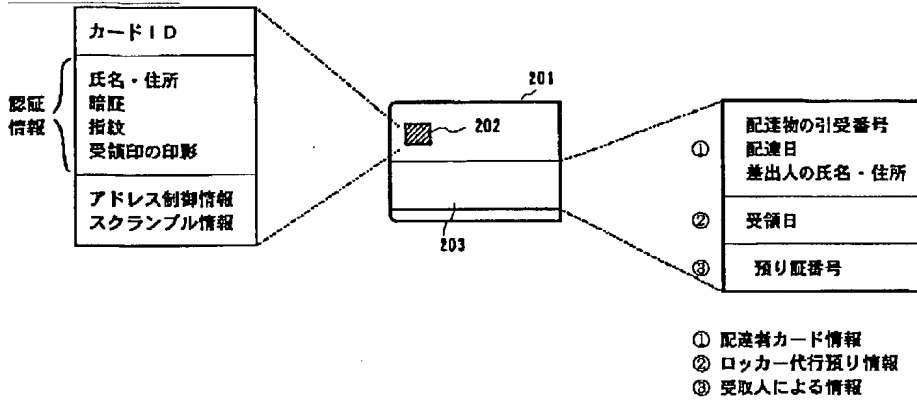
[Drawing 11]



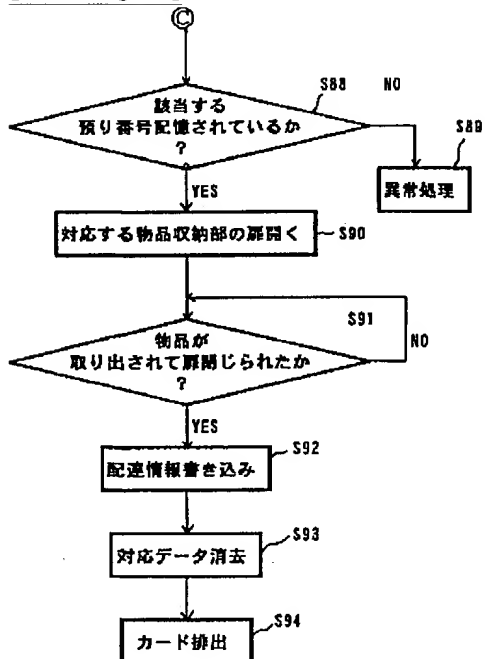
[Drawing 13]



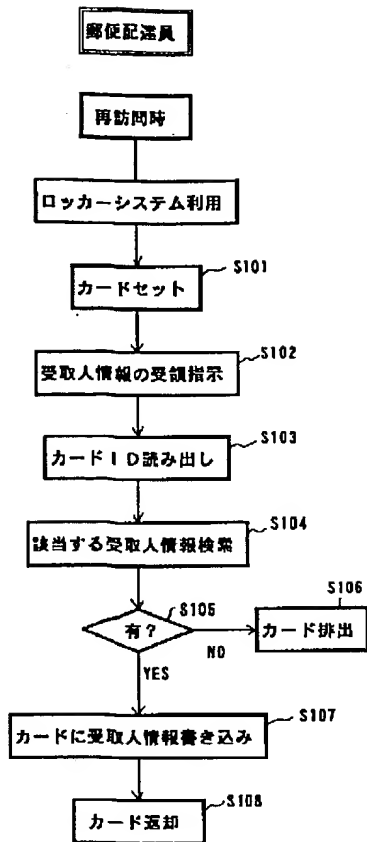
[Drawing 14]



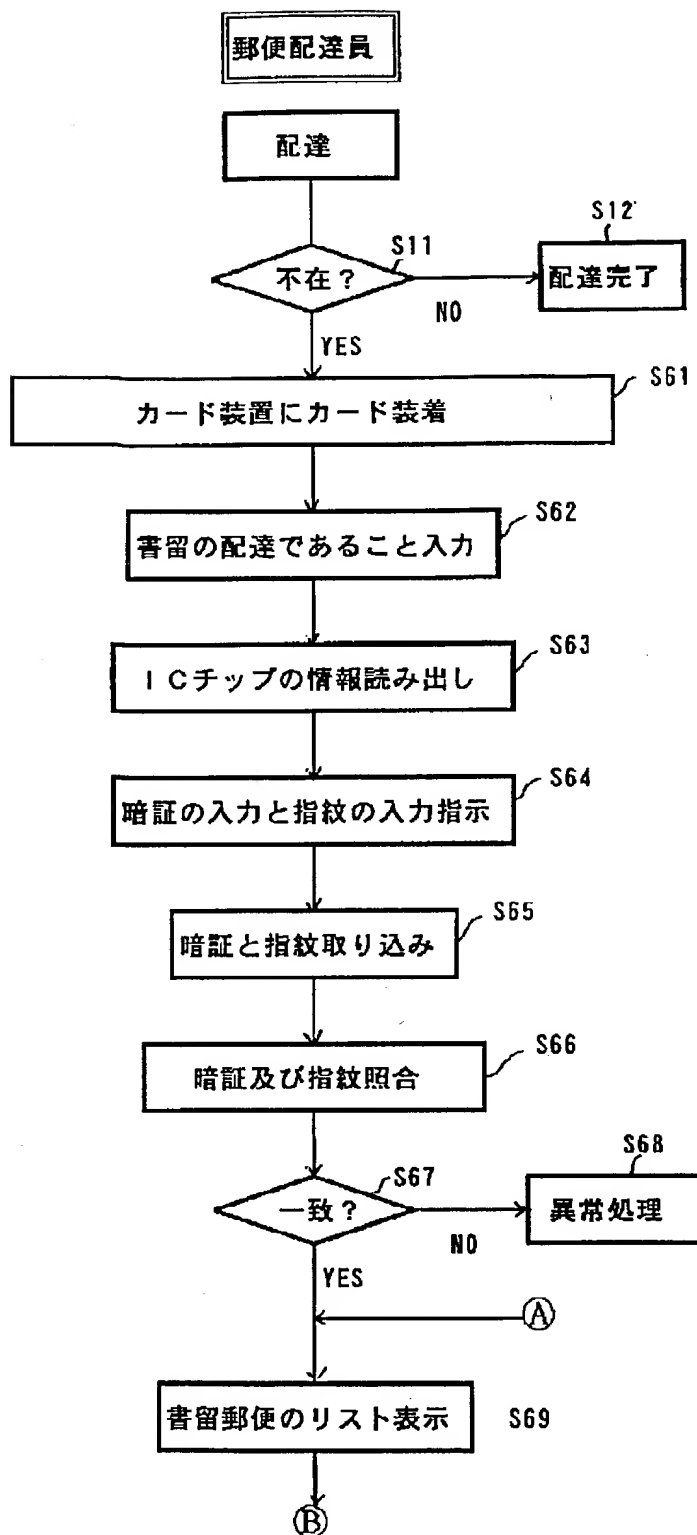
[Drawing 18]



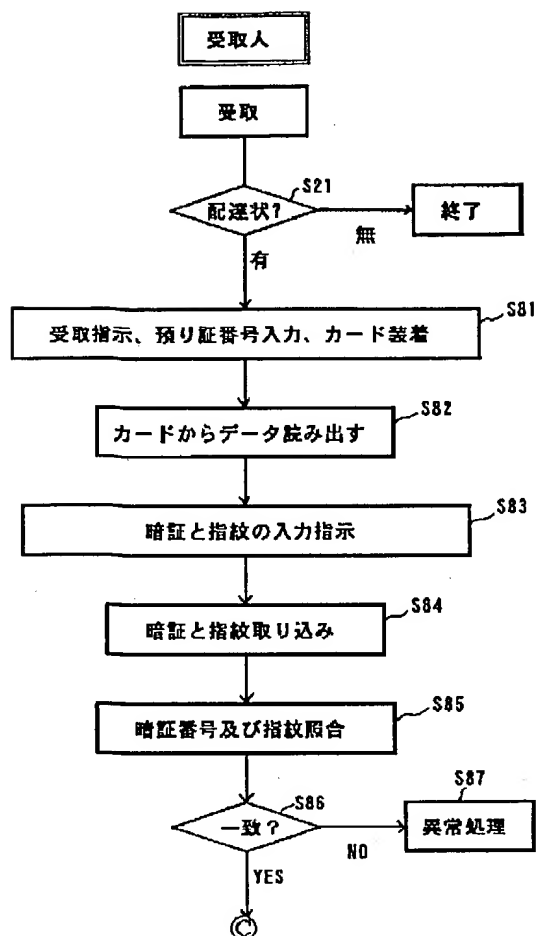
[Drawing 19]



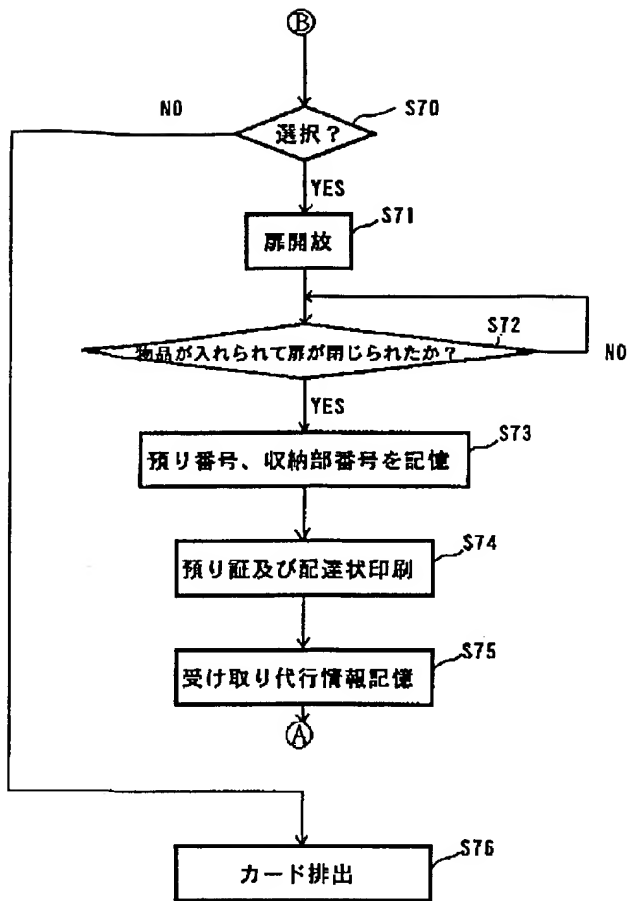
[Drawing 15]



[Drawing 17]



[Drawing 16]



[Translation done.]